

IN THE CLAIMS

Cancel Claims 1-17.

Add new Claims 18-62:

18. (New) A tube consisting of two different layers of resin, wherein resin (I) comprises:

5 to 40 mass% of a polypropylene resin and

95 to 60 mass% of at least one hydrogenated copolymer selected from the group consisting of:

a first hydrogenated block copolymer comprising a hydrogenated block copolymer formed of (A) a polymer block from a vinyl aromatic compound and (B) an isoprene polymer block,

a second hydrogenated block copolymer comprising a hydrogenated block copolymer formed of said (A) polymer block from a vinyl aromatic compound and (C) a polymer block from isoprene and butadiene,

a third hydrogenated block copolymer comprising a hydrogenated block copolymer formed of said (A) polymer block from a vinyl aromatic compound and a butadiene polymer block, and

a forth hydrogenated copolymer comprising a hydrogenated copolymer of a vinyl aromatic compound and butadiene, and

resin (II) comprises

45 to 100 mass% of a polypropylene resin and

55 to 0 mass % of the above at least one hydrogenated copolymer;

wherein said tube has a shear peel strength of less than 35 N, as measured on a stuck or adhered portion of the outermost layer of said tube after autoclave sterilization at 121°C

for 20 minutes, and has a 180° peel strength of less than 10 N, as measured by the test method defined in JIS K6854 after autoclave sterilization at 121°C for 20 minutes.

19. (New) The tube of Claim 18, wherein resin (I) forms the inner layer.

20. (New) The tube of Claim 18, wherein resin (I) forms the outer layer.

21. (New) The tube of claim 18, wherein the thickness ratio of the inner layer to the outer layer is ranges from 940 - 980/60 - 20.

22. (New) The tube of claim 18, wherein resin (II) contains 45 to 70 mass% of the polypropylene resin and 55 to 30 mass% of the at least one hydrogenated copolymer.

23. (New) The tube of claim 18, wherein resin (II) contains 70 to 100 mass% of the polypropylene resin and 30 to 0 mass% of the at least one hydrogenated copolymer.

24. (New) The tube of claim 18, wherein the hydrogenated copolymer of resin (I) is a first hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of (A) a polymer block from a vinyl aromatic compound and (B) an isoprene polymer block.

25. (New) The tube of claim 18, wherein the hydrogenated copolymer of resin (I) is a second hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of said (A) polymer block from a vinyl aromatic compound and (C) a polymer block from isoprene and butadiene.

26. (New) The tube of claim 18, wherein the hydrogenated copolymer of resin (I) is a third hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of said (A) polymer block from a vinyl aromatic compound and a butadiene polymer block.

27. (New) The tube of claim 18, wherein the hydrogenated copolymer of resin (I) is a fourth hydrogenated block copolymer obtained by hydrogenating a copolymer of a vinyl aromatic compound and butadiene.

28. (New) The tube of claim 18, wherein the hydrogenated copolymer of resin (II) is a first hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of (A) a polymer block from a vinyl aromatic compound and (B) an isoprene polymer block.

29. (New) The tube of claim 18, wherein the hydrogenated copolymer of resin (II) is a second hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of said (A) polymer block from a vinyl aromatic compound and (C) a polymer block from isoprene and butadiene.

30. (New) The tube of claim 18, wherein the hydrogenated copolymer of resin (II) is a third hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of said (A) polymer block from a vinyl aromatic compound and a butadiene polymer block.

31. (New) The tube of claim 18, wherein the hydrogenated copolymer of resin (II) is a fourth hydrogenated block copolymer obtained by hydrogenating a copolymer of a vinyl aromatic compound and butadiene.

32. (New) The tube of claim 18, wherein said first hydrogenated block copolymer has a vinyl aromatic compound component content of 10 to 40 mass, the isoprene polymer block (B) has a 1,2-bond and 2,4-bond content of 10 to 75 mol%, and at least 70 % of carbon-carbon double bonds of the block copolymer are hydrogenated.

33. (New) The tube of Claim 18, wherein said second hydrogenated block copolymer has a vinyl aromatic compound component content of 10 to 40 mass%, the polymer block (C) has an isoprene component/butadiene component weight ratio of 5/95 to 95/5 and a 1,2-bond and 3,4-bond content of 20 to 85 mol%, and at least 70 % of carbon-carbon double bonds of the block copolymer are hydrogenated.

34. (New) The tube of claim 18, wherein said third hydrogenated block copolymer has a vinyl aromatic compound component content of 10 to 40 mass%, the butadiene polymer

block (D) has a 1,2-bond content of at least 30 mol%, and at least 70 % of carbon-carbon double bonds of the block copolymer are hydrogenated.

35. (New) The tube of claim 18, wherein said vinyl aromatic compound is styrene.

36. (New) The tube of claim 18, wherein the polypropylene resin in resin (I) has a bending flexural modulus of 200 to 400 MPa and the polypropylene resin in resin (II) has a flexural modulus of 500 to 900 MPa.

37. (New) The tube of claim 18 that has been sterilized.

38. (New) A medical device comprising the tube of claim 18 connected to at least one other member.

39. (New) The medical device of claim 18, selected from the group consisting of a blood tube, an infusion tube, a catheter, and a balloon catheter.

40. (New) A circuit for extracorporeal circulation comprising the tube of claim 18.

41. (New) A tube consisting of an inner, intermediate and outer resin layer, wherein the inner and outer layers are made of resin (II) and the intermediate layer is formed of resin (I),

wherein

resin (I) comprises:

5 to 40 mass% of a polypropylene resin and

95 to 60 mass% of at least one hydrogenated copolymer selected from the group consisting of:

a first hydrogenated block copolymer comprising a hydrogenated block copolymer formed of (A) a polymer block from a vinyl aromatic compound and (B) an isoprene polymer block,

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a second hydrogenated block copolymer comprising a hydrogenated block copolymer formed of said (A) polymer block from a vinyl aromatic compound and (C) a polymer block from isoprene and butadiene,  
a third hydrogenated block copolymer comprising a hydrogenated block copolymer formed of said (A) polymer block from a vinyl aromatic compound and a butadiene polymer block, and  
a forth hydrogenated copolymer comprising a hydrogenated copolymer of a vinyl aromatic compound and butadiene, and  
resin (II) comprises:

45 to 100 mass% of a polypropylene resin and

55 to 0 mass % of the above at least one hydrogenated copolymer,

wherein said tube has a shear peel strength of less than 35 N, as measured on a stuck or adhered portion of the outermost layer of said tube after autoclave sterilization at 121°C for 20 minutes, and has a 180° peel strength of less than 10 N, as measured by the test method defined in JIS K6854 after autoclave sterilization at 121°C for 20 minutes.

42. (New) The tube of claim 41, wherein said resin (II) contains 45 to 70 mass% of the polypropylene resin and 55 to 30 mass% of the at least one hydrogenated copolymer.

43. (New) The tube of claim 41, wherein said resin (II) is contains 70 to 100 mass% of the polypropylene resin and 30 to 0 mass% of the at least one hydrogenated copolymer.

44. (New) The tube of claim 41, wherein the tube has an outer layer/intermediate layer/inner layer thickness ratio of 20 - 30/940 - 960/20 - 30.

45. (New) The tube of claim 41, wherein resin (II), which forms an outer layer, contains 45 to 70 mass% of the polypropylene resin and 55 to 30 mass% of the at least one hydrogenated copolymer;

resin (I), which forms an intermediate layer, contains 5 to 40 mass% of the polypropylene resin and 95 to 60 mass% of the at least one hydrogenated copolymer; and resin (II), which forms an inner layer is a layer contains 70 to 100 mass% of the polypropylene resin and 30 to 0 mass% of the hydrogenated copolymer.

46. (New) The tube of claim 41, wherein said first hydrogenated block copolymer has a vinyl aromatic compound component content of 10 to 40 mass, the isoprene polymer block (B) has a 1,2-bond and 2,4-bond content of 10 to 75 mol%, and at least 70 % of carbon-carbon double bonds of the first block copolymer are hydrogenated.

47. (New) The tube of claim 41, wherein said second hydrogenated block copolymer has a vinyl aromatic compound component content of 10 to 40 mass%, the polymer block (C) has an isoprene component/butadiene component weight ratio of 5/95 to 95/5 and a 1,2-bond and 3,4-bond content of 20 to 85 mol%, and at least 70 % of carbon-carbon double bonds of the second block copolymer are hydrogenated.

48. (New) The tube of claim 41, wherein said third hydrogenated block copolymer has a vinyl aromatic compound component content of 10 to 40 mass%, the butadiene polymer block (D) has a 1,2-bond content of at least 30 mol%, and at least 70 % of carbon-carbon double bonds of the third block copolymer are hydrogenated.

49. (New) The tube of claim 41, wherein the hydrogenated copolymer of resin (I) is a first hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of (A) a polymer block from a vinyl aromatic compound and (B) an isoprene polymer block.

50. (New) The tube of claim 41, wherein the hydrogenated copolymer of resin (I) is a second hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of said (A) polymer block from a vinyl aromatic compound and (C) a polymer block from isoprene and butadiene.

51. (New) The tube of claim 41, wherein the hydrogenated copolymer of resin (I) is a third hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of said (A) polymer block from a vinyl aromatic compound and a butadiene polymer block.

52. (New) The tube of claim 41, wherein the hydrogenated copolymer of resin (I) is a fourth hydrogenated block copolymer obtained by hydrogenating a copolymer of a vinyl aromatic compound and butadiene.

53. (New) The tube of claim 41, wherein the hydrogenated copolymer of resin (II) is a first hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of (A) a polymer block from a vinyl aromatic compound and (B) an isoprene polymer block.

54. (New) The tube of claim 41, wherein the hydrogenated copolymer of resin (II) is a second hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of said (A) polymer block from a vinyl aromatic compound and (C) a polymer block from isoprene and butadiene.

55. (New) The tube of claim 41, wherein the hydrogenated copolymer of resin (II) is a third hydrogenated block copolymer obtained by hydrogenating a block copolymer formed of said (A) polymer block from a vinyl aromatic compound and a butadiene polymer block.

56. (New) The tube of claim 41, wherein the hydrogenated copolymer of resin (II) is a fourth hydrogenated block copolymer obtained by hydrogenating a copolymer of a vinyl aromatic compound and butadiene.

57. (New) The tube of claim 41, wherein said vinyl aromatic compound is styrene.

58. (New) The tube of claim 41, wherein the polypropylene resin in resin (I) has a bending flexural modulus of 200 to 400 MPa and the polypropylene resin in resin (II) has a flexural modulus of 500 to 900 MPa.

59. (New) The tube of claim 41 that is sterile.